

Flexible Polymer-Embedded Si Wire Arrays**

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Supporting Information

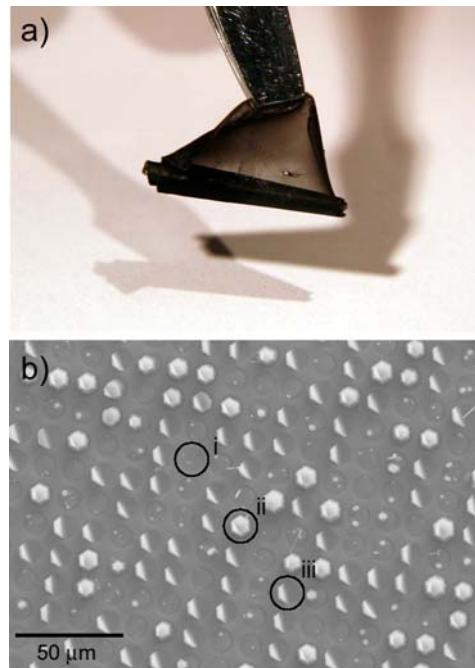


Figure S1. Processing properties of polymer-embedded Si wire arrays. (a) The peeled films rolled into cylinders of narrow width without substantial damage, suggesting that roll-to-roll processing methods could be employed. (b) SEM images of the substrate after removal of the polymer-embedded wire arrays and remaining polymer showed that the wires were removed almost completely, leaving at most small wire stubs on the substrate. The single crystalline substrate and silicon oxide template remained intact after peeling of the PDMS. Regions where wires had been (i) removed flush with the Si substrate, and (ii) short flat-topped stubs as well as (iii) short angled stubs, where wires had been broken off slightly above the base of the wire were found.

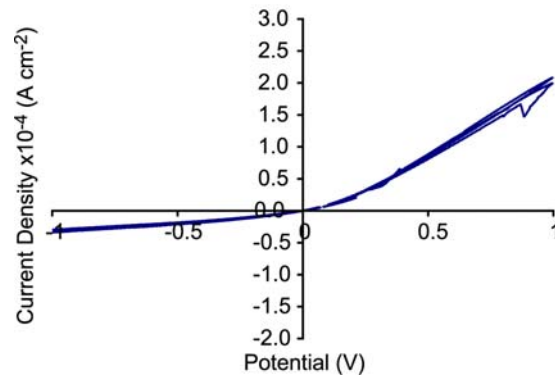


Figure S2. Dark J - V characteristics of a Au catalyst-suspended Si wire array Schottky diode, demonstrating the feasibility of device fabrication using free-standing wire arrays.